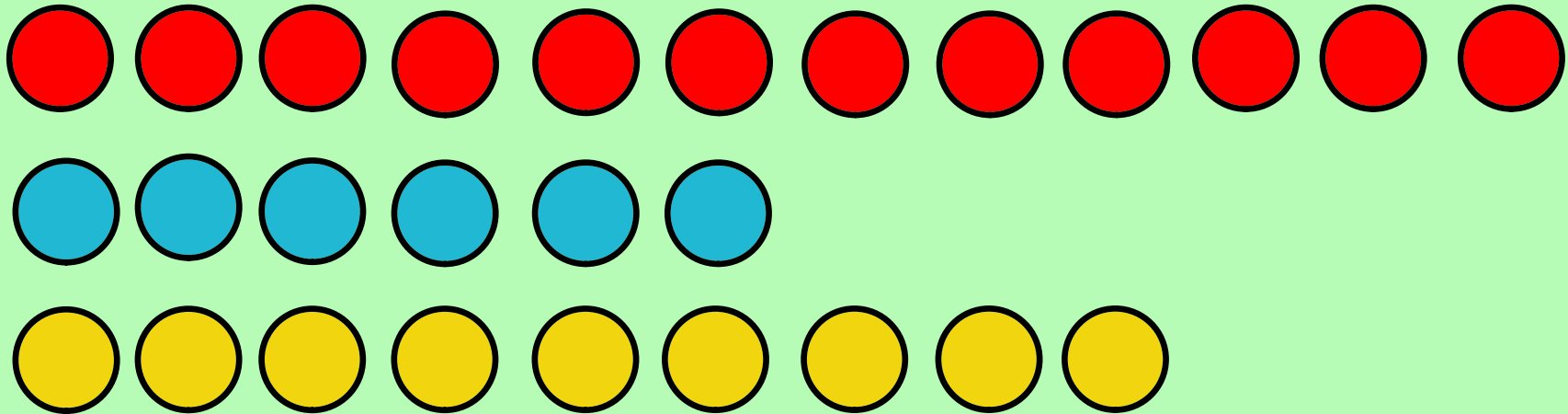


Ratios



Which of the advertisements are most effective?
Why do you think so?

Ratios



Compare the number of blue counters to the number of yellow counters.

6 to 9 or 6:9

How many ways can you compare the number of counters?

Write each way that you find.

Part to Whole Ratios



We can use a two-term ratio to compare one part of the collection to the whole collection.

There are 7 basketballs compared to 20 balls.

The ratio of basketballs to all the balls is 7 to

20 which is written as 7:20 $\frac{7}{20}$

We can also write this as a fraction. $\frac{7}{20}$

Part to whole ratios can also be written as a percent.

$$\frac{7}{20} = \frac{35}{100} = 35\%$$



What percent of the balls are tennis balls?

8 out of 20 or 8:20 or 8/20

$$8/20 \times 100 = 40\%$$

What percent of the balls are golf balls?

5 out of 20 or 5:20 or 5/20

$$5/20 \times 100 = 25\%$$

Part to Part Ratios



We can also use a **two term ratio** to compare one part of the collection to another part of the collection.

Compare golf balls to tennis balls.

The ratio can be written as **5 to 8** or **5:8**.

Three Term Ratio



We can use a **three term ratio** to compare all the balls.

There are **5** golf balls to **8** tennis balls to **7** basketballs.

We can write this ratio as **5 to 8 to 7** or **5:8:7**

Example

At a class party, there are 16 boys, 15 girls, and 4 adults.

Show each ratio as many different ways as you can.

- a) boys to girls
- b) boys to girls to adults
- c) adults to total number of people at the party

$$B = 16$$

$$G = 15$$

$$A = 4$$

$$P(\text{people}) = 35$$

Identify all the parts (Boys, Girls and Adults)

Identify the whole (They are all people so add them)

a) Boys to Girls
16 to 15
16:15

b) Boys to Girls to Adults
16 to 15 to 4
16:15:4

c) Adults to Total Number of People
4 to 35
4:35

Since this is a part to whole ratio, it can be expressed as a fraction and a percent.

$$\frac{4}{35}$$
$$\frac{4}{35} \times 100 = 11.4\%$$